

Book announcements

Norman L. Biggs
DISCRETE MATHEMATICS, Second Edition
Oxford University Press Inc., New York, 2002, 425pp.

Table of Contents

Preface to the Second Edition

Part I FOUNDATIONS

- Chapter 1: Statements and proofs
- Chapter 2: Set notation
- Chapter 3: The logical framework
- Chapter 4: Natural numbers
- Chapter 5: Functions
- Chapter 6: How to count
- Chapter 7: Integers
- Chapter 8: Divisibility and prime numbers
- Chapter 9: Fractions and real numbers

Part II TECHNIQUES

- Chapter 10: Principles of counting
- Chapter 11: Subsets and designs
- Chapter 12: Partition, classification, and distribution
- Chapter 13: Modular arithmetic

Part III ALGORITHMS AND GRAPHS

- Chapter 14: Algorithms and their efficiency
- Chapter 15: Graphs
- Chapter 16: Trees, sorting, and searching
- Chapter 17: Bipartite graphs and matching problems
- Chapter 18: Digraphs, networks, and flows
- Chapter 19: Recursive techniques

Part IV ALGEBRAIC METHODS

- Chapter 20: Groups
- Chapter 21: Groups of permutations
- Chapter 22: Rings, fields, and polynomials
- Chapter 23: Finite fields and some applications
- Chapter 24: Error-correcting codes
- Chapter 25: Generating functions
- Chapter 26: Partitions of a positive integer
- Chapter 27: Symmetry and counting

Answers to exercise

Index

I. Reiner

MAXIMAL ORDERS

Oxford University Press Inc., New York, 2003, 395pp.

Table of Contents

Foreword

Preface

Acknowledgements

Permanent notation

1	Algebraic preliminaries
1	Integral closure
2	Homological algebra
3	Localization
4	Dedekind domains
5	Completions and valuations
6	Radicals of rings
7	Semisimple rings and simple algebras
2	Orders
8	Definitions and examples
9	Reduced norms and traces
10	Existence of maximal orders; discriminant
11	Localization of orders
3	Maximal orders in skewfields (local case)
12	Uniqueness of maximal orders
13	Ramification index; inertial degree
14	Finite residue class field case
4	Morita equivalence
15	Progenerators
16	Morita correspondence
5	Maximal orders over discrete valuation rings
17	Maximal orders (complete local case)
18	Maximal orders (local case)
19	Ideals
20	Different, discriminant
6	Maximal orders over Dedekind domains
21	Basic results
22	Ideal theory
23	Alternate approach to global ideal theory
24	Norms of ideals
25	Different, discriminant
26	Ideal classes; Jordan-Zassenhaus theorem
27	Genus
7	Crossed-product algebras
28	Brauer groups
29	Crossed-product algebras
30	Cyclic algebras
31	Cyclic algebras over local fields
8	Simple algebras over global fields
32	Splitting of simple algebras
33	Reduced norms

	34	Eichler's Theorem
	35	Ideal class groups
	36	K_0 of maximal orders
	37	Picard groups
	38	Non-maximal orders
9		Hereditary orders
	39	Local theory of hereditary
	40	Global theory of hereditary orders
	41	Group rings
		References
		Index